

PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY


(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

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Applicant's or agent's file reference BPX 10096		FOR FURTHER ACTION		See Form PCT/PEA/416
International application No. PCT/GB2004/004986		International filing date (day/month/year) 25.11.2004		Priority date (day/month/year) 22.12.2003
International Patent Classification (IPC) or national classification and IPC E21B4/04, E21B4/18, E21B43/10				
Applicant BP EXPLORATION OPERATING COMPANY LIMITED et al.				
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> sent to the applicant and to the International Bureau) a total of sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>				
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input checked="" type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>				
Date of submission of the demand 15.07.2005		Date of completion of this report 16.11.2005		
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465		Authorized Officer Georgescu, M Telephone No. +49 89 2399-		



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Box No. 1 Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
 - ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

1-22 as originally filed

Claims, Numbers

1-10 as originally filed

Drawings, Sheets

1/7-7/7 as originally filed

☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-10
	No: Claims	
Inventive step (IS)	Yes: Claims	1-10
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-10
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

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Reference is made to the following document:

D1: US 2003/0034177

V - Reasoned statement with regard to novelty, inventive step or industrial applicability

V-1 Claim 1

D1, which is considered as the closest prior art, describes a method of drilling a second wellbore section (fig.9) from a first wellbore section that is lined with a tubular liner (96) and of extending the tubular liner (126) into the second wellbore section, the method comprising:

- (a) drilling the second wellbore section from the first wellbore section using a remotely controlled electrically powered drilling assembly (paragraph 215) that is suspended from cable (283) that extends from the surface wherein the cable comprises an upper and a lower length of cable connected by a cable connection means (paragraph 273, lines 11-13; implicit connecting means between the segments of the umbilical) and the drilling assembly comprises an expansion means (fig.10), a traction means (630), and an electrically actuated drill bit (paragraph 215) and wherein electricity is transmitted to the assembly via at least one electrical wire (paragraph 251) that extends from the surface to the assembly;
- (b) introducing an expandable liner (126) into the wellbore
- (c) actuating the expansion means (fig.10) of the assembly to expand the upper portion of the expandable liner pipe into the lower portion of the tubular liner to form a sealed connection therebetween and to expand the lower portion of the expandable liner pipe to extend the tubular liner.

The distinguishing features of claim 1 with regard to D1 are comprised on point (b).

The problem to be solved by the aforementioned features is how to provide the assembly with successive liner tubulars to be expanded in the wellbore.

The technical problem is solved by providing the assembly with a traction means that is movable along the cable in combination with the possibility of disconnecting the cable parts in order to arrange the liner tubular about the cable so that it can

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be conveyed downhole by the traction means. The liner (126) of D1 is conveyed together with the drilling device (fig.6) and no further liner can be sent from the surface downhole.

As none of the prior art suggests the aforementioned features, the skilled man would not find obvious to arrive at the subject-matter of claim 1. Therefore, claim 1 meets the requirement for inventive step of Art. 33(3) PCT.

V-2 Independent claims 4 and 5 also comprise the inventive features of claim 1.

Therefore, claims 2 to 10 also meet the requirement of Art. 33(3) PCT.

VII - Certain defects

- VII-1 The independent claims are not properly cast in the two part form, with those features which in combination are part of the closest prior art (D1) being placed in the preamble, contrary to the requirements of Rule 6.3(b) PCT.
- VII-2 Contrary to the requirements of Rule 5.1(a)(ii)PCT, the relevant background art disclosed in documents D1, D2 is not mentioned in the description, nor are these documents identified therein.